



Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife

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www.state.ma.us/dfwele/dfw/nhesp

Hitchcock's Sedge *Carex hitchcockiana*

State Status: **Special Concern**

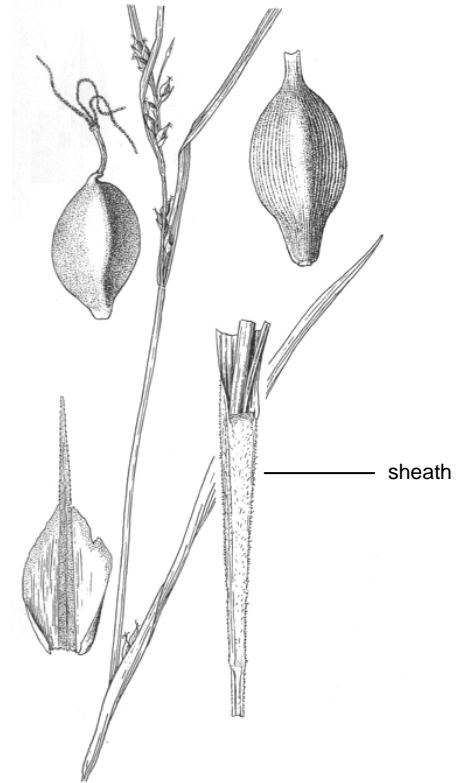
Federal Status: None

General Description:

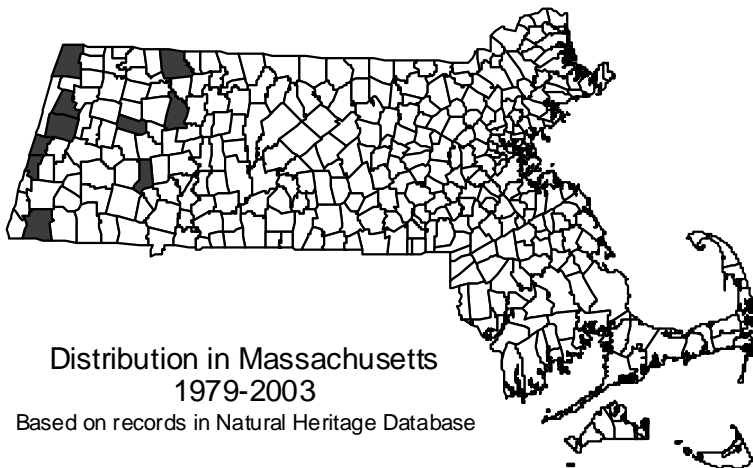
Hitchcock's sedge, a member of the Sedge family (Cyperaceae), is a perennial, herbaceous, grass-like plant of rich woodlands. It was named in honor of botanist Edward Hitchcock (1793-1864). It may occur singly or in large stands of slender stems from 8 – 28" (20 – 70 cm) tall. It is often found in association with other rich woodland herbs under a forest canopy.

Aids to identification:

To positively identify Hitchcock's sedge and other members of the genus *Carex*, a technical manual should be consulted. Species in this genus have tiny, wind-pollinated flowers that are borne in spikes. Each flower is unisexual, and is closely subtended by small, flat scales that largely conceal the flowers. The staminate (*i.e.*, pollen bearing) flowers are subtended by a single scale. The pistillate (*i.e.*, ovule bearing) flowers are subtended by two scales, an outer flat scale ("pistillate scale") and an inner, sac-like scale, called a "perigynium," that encloses the flower, and later, the fruit.



Holmgren, Noel H. *The Illustrated Companion to Gleason and Cronquist's Manual*. NY Botanical Garden. 1998.



Distribution in Massachusetts
1979-2003

Based on records in Natural Heritage Database

Hitchcock's sedge belongs to a group of *Carex* (section *Griseae*), which all have impressed (sunken) perigynia veins. In this species, the perigynium is broadest well above the middle (obovate); it tapers gradually toward the base and more abruptly toward the tip to a "beak" (see illustration). The tiny fruit ("achene") inside each perigynium has a sharply bent beak. Each flowering culm has a single, terminal, staminate spike above two to four pistillate spikes. The lowermost bract (leaf-like structure below the spikes) is rough and quite long, extending well beyond the tops of the spikes. Its leaves, which usually extend above the stem, can be up to 6.5 mm wide. The culm bases are brownish in color.

Similar species:

Hitchcock's sedge is similar in growth habit to another rare sedge of rich woods, the few-fruited sedge (*Carex oligocarpa*—Historic in Massachusetts), and also to the gray sedge (*Carex grisea*). However, the following characters may be used to distinguish Hitchcock's sedge from them: the bracts and bract sheaths of Hitchcock's sedge are scabrous (smooth in few-fruited and gray sedges); and the culm bases are brownish in Hitchcock's sedge (purplish-red in the few-fruited and gray sedges).

Habitat:

Hitchcock's sedge occurs in rich mesic woods, often in areas overlying calcareous bedrock. Several Massachusetts populations are situated on unstable slopes of loose rock. Herbaceous species associated with the Massachusetts populations include hog peanut (*Amphicarpaea bracteata*), large-leafed aster (*Eurybia macrophylla*), doll's eyes (*Actaea pachypoda*), red baneberry (*Actaea rubra*), ginseng (*Panax quinquefolius*), glade fern (*Diplazium pycnocarpon*), herb Robert (*Geranium robertianum*), marginal shield fern (*Dryopteris marginalis*), blue cohosh (*Caulophyllum thalictroides*), Goldie's fern (*Dryopteris goldiana*), and large-flowered bellwort (*Uvularia grandifolia*). Hitchcock's sedge often grows in areas with little or no shrub layer, but it has sometimes been reported in association with woody understory species such as leatherwood (*Dirca palustris*), poison ivy (*Toxicodendron radicans*), dogwood (*Cornus* spp.) and viburnum (*Viburnum* spp.). Tree species associated with Hitchcock's sedge include sugar maple (*Acer saccharum*), hickory (*Carya* spp.), red oak (*Quercus rubra*), basswood (*Tilia americana*), beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), birch (*Betula* sp.), hemlock (*Tsuga canadensis*) and hornbeam (*Carpinus caroliniana*).

Range:

The documented range of Hitchcock's sedge extends from southern Quebec and Minnesota in the north to Oklahoma, Tennessee and North Carolina in the south.

Population status in Massachusetts:

Hitchcock's sedge is listed under the Massachusetts Endangered Species Act as a Species of Special Concern. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors.

Hitchcock's sedge is currently known (discovered or relocated since 1978) from 21 occurrences in eleven communities in Massachusetts, with three additional records of historic populations. All current populations appear to be vigorous with most plants bearing fruit in season. Hitchcock's sedge is also listed as rare in Connecticut, New York, and Vermont. It has not been documented from Rhode Island, New Hampshire, or Maine.

Management recommendations:

Little is known about the specific requirements of Hitchcock's sedge, but observations of existing populations suggest that it may be tolerant of some disturbance. Nevertheless, drastic alteration of soils, hydrology or the forest structure, as well as fragmentation of its woodland habitat may have negative impacts on a population. Elimination of invasive, non-native plant species in the vicinity may also be important measures to protect populations of Hitchcock's sedge.

Mature Perigynia Present:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec